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BIENNIAL REPORT

FY 1984-85 & FY 1985-86

Public Utilities Commission
City & County of San Francisco

1984-1985 & 1985-1986

BIENNIAL REPORT

Public Utilities Commission

CITY & COUNTY OF SAN FRANCISCO

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RUDOLF NOTHENBERG, *General Manager*

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DIANNE FEINSTEIN

Mayor of San Francisco

PUBLIC UTILITIES COMMISSION
CITY AND COUNTY OF SAN FRANCISCO

DIANNE FEINSTEIN, Mayor
RUDOLF NOTHENBERG, General Manager

SAN FRANCISCO
MUNICIPAL RAILWAY

HETCH HETCHY
WATER AND POWER

SAN FRANCISCO
WATER DEPARTMENT

June 30, 1986

The Honorable
Public Utilities Commission
City and County of San Francisco

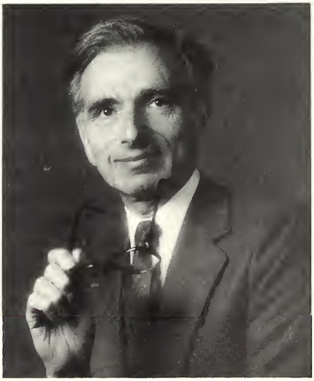
In compliance with City Charter sections 3.500 and 3.501 this bienniel report for FYS 1984/85 and 1985/86 is hereby submitted.

The agencies of the PUC – the Municipal Railway, Hetch Hetchy and the Water Department – supported by the various bureaus continue to provide the highest level of services to their patrons and do so efficiently within the financial resources available.

I want to acknowledge and pay tribute here to the thousands of our dedicated employees who run our public transit system and deliver electric power and water to our homes and industries. It is they who are responsible for the good performance detailed in these pages. We owe them a debt of gratitude.

Rudolf Nothenberg
General Manager
Public Utilities Commission

287 CITY HALL · SAN FRANCISCO, CALIFORNIA 94102 · (415) 554-7316



RUDOLF NOTHENBERG
General Manager
Public Utilities Commission

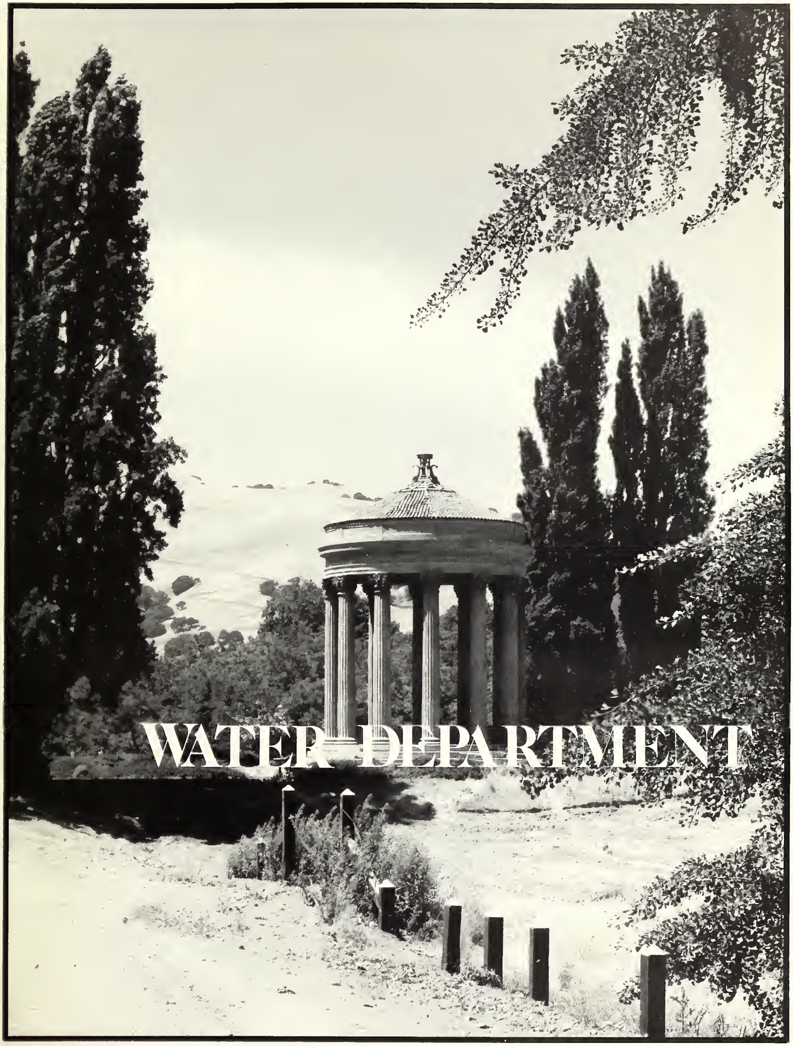
The Public Utilities Commission

The Public Utilities Commission is an agency of the City and County of San Francisco. In 1932, the San Francisco Charter created a Public Utilities Commission to take over the operations and management of the then present and any future public service enterprises. The enterprises currently within the Commission's jurisdiction include the San Francisco Water Department, the Hetch Hetchy Project and the San Francisco Municipal Railway. Each of these enterprises operates separately and maintains separate enterprise funds.

Under the provisions of the Charter, responsibility for maintenance, operation and development of these utilities has been vested in the five-member Commission. Commission members are appointed by the Mayor for four-year terms. As provided in subsection 3.591 of the Charter:

> *"The Public Utilities Commission shall have charge of the construction, management, supervision, maintenance, extension, operation and control of all public utilities and other properties used, owned, acquired, leased or constructed by the city and county, excepting airports, for the purpose of supplying any public utility service to the city and county and its inhabitants, to territory outside the limits of the city and county, and to the inhabitants thereof."*

WATER DEPARTMENT



Sunol Water Temple

San Francisco Water Supply

The San Francisco Water Works was formed in 1857 to develop local water sources to serve the town of San Francisco.

In 1860 a competing company, the Spring Valley Water Works (later Spring Valley Water Company), was organized and was named after a spring located at Washington and Powell streets.

In 1901 the Tuolumne River system, which came to be called the Hetch Hetchy Project, was recommended by City Engineer Carl Grunsky as the most desirable long-range source of water. The City took steps to appropriate waters of the Tuolumne under the provisions of California water rights law. The right to appropriate such waters was successfully secured in 1906. Agreement of the United States Department of the Interior was also sought because the proposed reservoir sites were within the Stanislaus National Forest and Yosemite National Park. After six years of negotiation and effort on the part of the City, a permit was granted by Interior Secretary James Garfield in May, 1907.

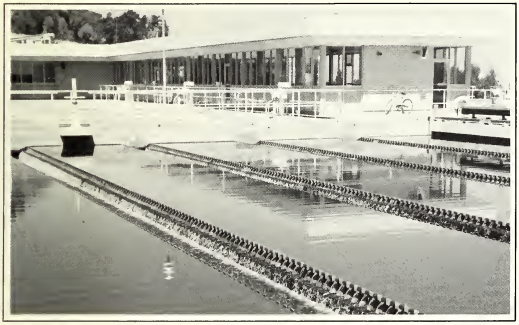
On the basis of the federal permit, the people of San Francisco voted a $600,000 bond issue in 1907 and a $45,000,000 issue in 1910. The Hetch Hetchy Project was then established.

After the Department of the Interior revoked portions of the original development permit, the City went to the United States Congress and asked for an act which would make its rights firm. After protracted debate by the Congress and studies by the Army Engineers, Congress passed the Hetch Hetchy grant known as the Raker Act, in 1913.

Crystal Springs Dam

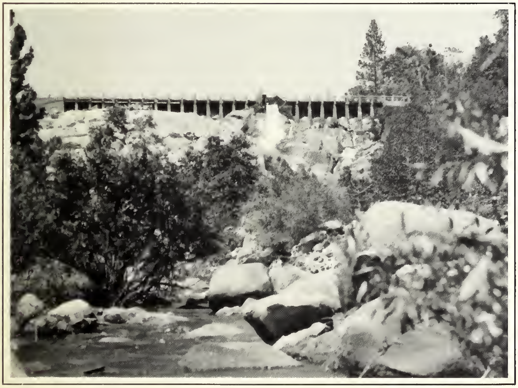
The Raker Act grants to San Francisco rights-of-way and public lands use in the Sierra to construct, operate, and maintain reservoirs, dams, conduits, and other structures necessary or incidental to developing and using water and power. The Act imposes conditions and obligations upon City, including requirements that the City:

San Andreas Filtration Plant



Sunol Valley Filtration Plant

(1) Recognize the prior rights of the Turlock and Modesto Irrigation Districts to receive water, up to specified amounts of natural daily flow, for direct use and storage;
(2) Enforce specific and stringent sanitary regulations within the watershed area;
(3) Develop electric power for municipal and commercial use; and
(4) Not sell or give Hetch Hetchy water or power to a private person or corporation for resale.



Lake Eleanor Dam

None of these restrictions apply to San Francisco Water Department supplies derived from sources and watersheds other than the Hetch Hetchy Project.

Congress provided that the Raker Act grant would not affect or interfere with California state laws relating to the control or appropriation of water. The City holds land rights under the Raker Act and holds the attendant water rights under California law. The water rights entitle San Francisco to appropriate at least 400 million gallons per day.

In 1909, before passage of the Raker Act, the City commenced developing the Tuolumne River source by purchasing lands and water rights at Hetch Hetchy, the Cherry Basin, and Lake Eleanor. Following enactment of the Raker Act, the City proceeded with developing the Hetch Hetchy Project.

With the Hetch Hetchy development underway, the City moved to acquire the entire water system. In March 1930, the San Francisco Water Department took over operation of the system purchased from the Spring Valley Water Company, which included much of the development of the presently used City water sources other than the Hetch Hetchy Project, under the authorization of an election held in 1928. Funds for this acquisition were obtained from a $41 million bond issue sold in 1928. At the same time a $24 million bond issue was passed to construct the Coast Range tunnels and San Joaquin pipeline, critical elements in the plan to bring water from the Sierra Nevada to the City.

San Francisco Water Department

The San Francisco Water Department is responsible for storing quality control and delivering water supplied by the Hetch Hetchy system and by various local sources in San Mateo and Alameda Counties. Water from Hetch Hetchy is delivered into the Water Department system at the Alameda East Portal of the Coast Range tunnel, which is the eastern boundary of the San Francisco Water Department system.

Within the City, the Water Department distributes, delivers and meters water directly to customers. Outside of San Francisco, with minor exceptions, water is delivered and metered from transmission mains to water purveyors who distribute to consumers in their service areas. These service areas are located in San Mateo, Santa Clara and Alameda Counties.

The quality of water delivered by the Water Department is among the highest of California's domestic water systems. Continuous maintenance of the facilities ensures security of water delivery. Reservoirs within the service area ensure a 170 day water supply, even in the unlikely event of a system failure.

C.S. Pump Station

Water Supply and Transmission System. Alameda East Portal is the easterly boundary of the Water Department system where water is received from the Hetch Hetchy project. From Irvington Portal, the west terminus of the Coast Range Tunnel, four pipelines known as Bay Division Pipelines Nos. 1, 2, 3, and 4 carry water to Pulgas Tunnel.

Sources of water supply other than the Hetch Hetchy Project are located in San Mateo, Santa Clara, and Alameda counties and provide approximately 10 percent of the water available to the Water Department. The local works are generally differentiated as Alameda and peninsula sources. The major sources in Alameda County are Sunol Infiltration Galleries, Calaveras Reservoir, and San Antonio Reservoir. Releases from San Antonio and Calaveras reservoirs are conveyed to Sunol Valley Water Filtration Plant and are then introduced into the Hetch Hetchy aqueduct.

Principal water supply sources on the peninsula are located in northern San Mateo County and consist of Pilarcitos, San Andreas, and Crystal Springs reservoirs. Water from Pilarcitos is delivered through a tunnel and pipeline to the San Andreas Reservoir. San Andreas Reservoir is interconnected with Crystal Springs Reservoir, but the delivery of water from the latter to the former must be accomplished by pumping because the normal water surface of San Andreas Reservoir is about 160 feet higher than that of Crystal Springs. Water stored in San Andreas Reservoir is treated at the San Andreas Filtration Plant and delivered to the distribution system through three major pipelines. Crystals Springs Reservoir is formed by two dams designated Upper Crystal Springs Dam and Lower Crystal Springs Dam. Most of the water from the Hetch Hetchy Aqueduct is delivered directly into the distribution systems, while excess Hetch Hetchy water is directed through the Pulgas Tunnel to Crystal Springs Reservoir for seasonal storage.

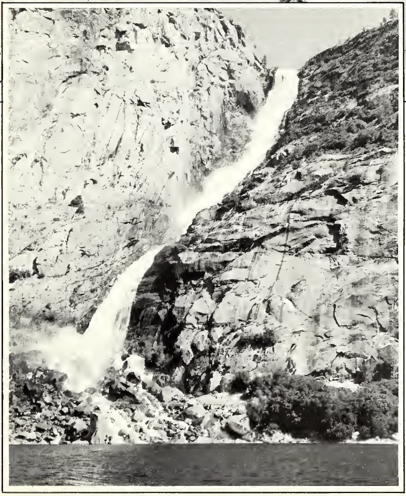
Water from the peninsula reservoirs is sent through the San Andreas Filter Plant to terminal storage facilities within San Francisco. Two of these terminal reservoirs, University Mound and Merced Manor, are at elevations sufficiently low to receive water by gravity from Hetch Hetchy Aqueduct and Crystal Springs

Reservoir. Another large reservoir, Sunset Reservoir, can be supplied by gravity from the San Andreas Reservoir. Other smaller reservoirs within the City are supplied by gravity or via booster pumping stations.

Water Quality. San Francisco water supply is kept clean and clear, even during times of heavy rainfall and ground erosion. Overseeing the effort, the Water Quality Division of the Water Department controls water quality and treatment, meeting increasingly rigid state and federally prescribed safeguards and undergoing regular monitoring by the State Health Department. The Water Quality Division's standards generally exceed existing state and federal requirements.

Hetch Hetchy sources in the Sierra Nevada are relatively secure from sources of contamination, with strict sanitary controls enforced throughout the area. All water derived from sources other than Hetch Hetchy is filtered before distribution.

Mt. Lyell

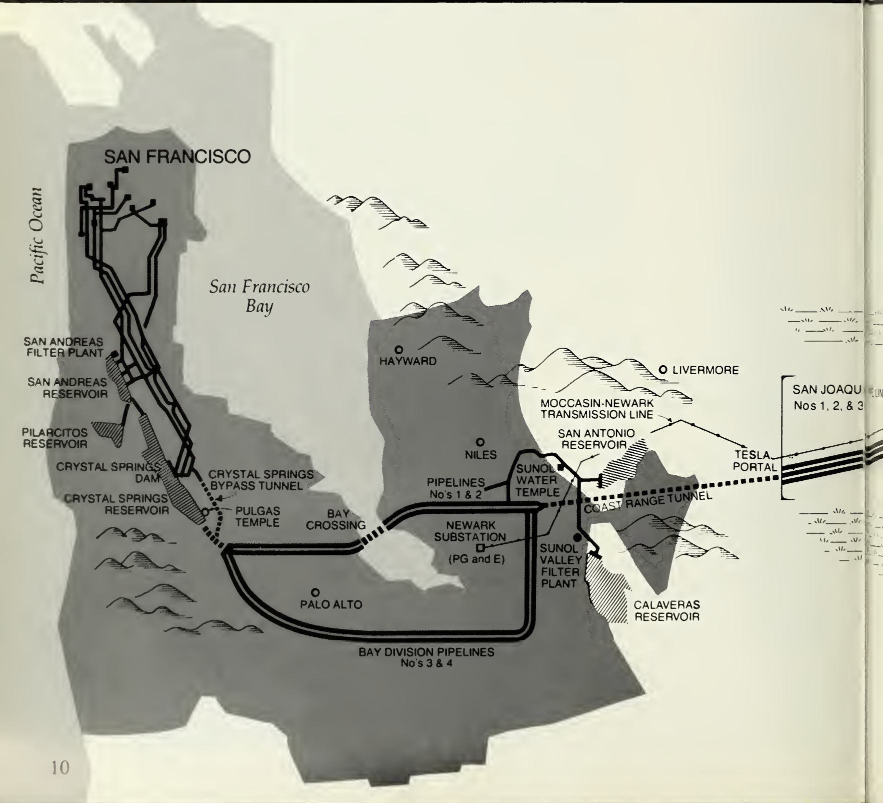


Wapama Falls

San Francisco Water System

S F WATER DEPT CITY RESERVOIRS	
NAME	Capacity Million gallons
LAKE MERCED *	2,565.0
SUNSET	174.8
UNIVERSITY MOUND	140.9
SUTRO	31.4
SUMMIT	14.0
COLLEGE HILL	14.1
STANFORD HEIGHTS	12.9
MERCED MANOR	9.5
LOMBARD	3.3
FRANCISCO	2.5
POTRERO	1.0
McLAREN PARK	8.0
HUNTERS POINT	1.1

* EMERGENCY



HETCH HETCHY RESERVOIRS

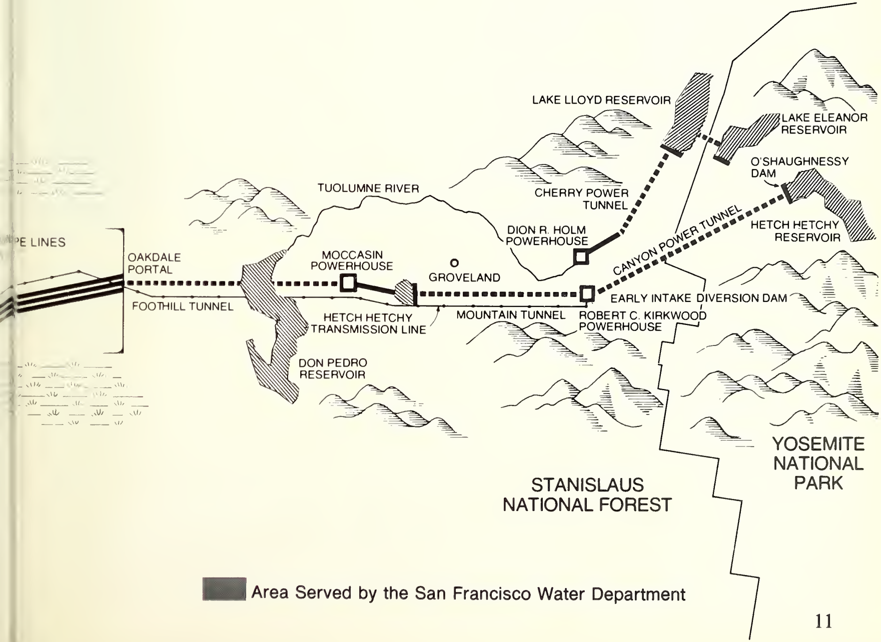
NAME	DAM			CAPACITY		PURPOSE
	TYPE	HEIGHT (FT)	LENGTH (FT)	ACRE-FEET	MILLION GALLONS	
HETCH HETCHY	CONCRETE GRAVITY ARCH	430	910	360,360	117,400	IMPOUNDING
LAKE LLOYD	COMPOSITE EARTH & ROCK	330	2,600	268,800	87,600	IMPOUNDING
LAKE ELEANOR	CONCRETE BUTTRESSED ARCH	70	1,260	27,100	8,830	IMPOUNDING
INTAKE	CONCRETE ARCH	81	262	115	37	DIVERSION
PRIEST	COMPOSITE EARTH & ROCK	160	1,160	1,055	345	REGULATING
MOCCASIN	COMPOSITE EARTH & ROCK	70	855	505	165	REREGULATING

S F. WATER DEPT STORAGE RESERVOIRS IN BAY AREA

NAME	Capacity	
	Acre-feet	Million gallons
CALAVERAS	96,850	31,560
CRYSTAL SPRINGS	69,300	22,580
SAN ANDREAS	19,000	6,190
PILARCITOS	3,100	1,010
SAN ANTONIO	50,500	16,455

HETCH HETCHY AQUEDUCT - DISTANCES IN MILES
O'SHAUGHNESSY DAM TO CRYSTAL SPRINGS RESERVOIR

POINTS ON LINE	DIVISION	TUNNEL	PIPE	RESER-VOIR	CANAL	TOTAL DIVISION	FROM O'SHAUGHNESSY
O'SHAUGHNESSY DAM							0.00
	CANYON	10.64	0.43			11.07	
EARLY INTAKE							11.07
	MOUNTAIN	18.81	0.04			18.85	
PRIEST RESERVOIR							29.92
	MOCCASIN	1.03	1.02	0.57		2.62	
MOCCASIN RES.							32.54
	FOOTHILL	15.85	.45			16.30	
OAKDALE PORTAL							48.84
	SAN JOAQUIN		47.51			47.51	
TESLA PORTAL							96.35
	COAST RANGE	28.64	.59			29.23	
IRVINGTON PORTAL							125.58
	BAY CROSSING		21.24			21.24	
PULGAS E. PORTAL							146.82
	PENINSULA	1.71			0.18	1.89	
CRYSTAL SPRGS. RES.							148.71
TOTAL		76.68	71.28	0.57	0.18	148.71	



City Distribution System

The water distribution system within the City consists of reservoirs and auxiliary tanks at various elevations, pumping stations and a network of 1,191 miles of pipeline, of various diameters.

San Francisco's geography ranges in elevation from sea level to 900 feet. Totally urbanized, with homes at the highest elevations, the hills posed challenges and complicated hydraulic situations for water engineers to overcome these problems, a series of different pressure districts have been created. These incorporate the oldest water works, reservoirs and improvements into a modern and efficient, integrated water distribution service. All water deliveries within the City are metered.

Local water produced from Bay Area sources by the Water Department and Hetch Hetchy water from the high Sierra are delivered into the City, mostly by gravity flow, through the Peninsula transmission mains to one or more of four terminal distribution reservoirs. From these reservoirs, the water is gravity fed, or hydropneumatically force-pumped, into eight covered distribution reservoirs, at elevations from 135 to 800 feet and smaller storage tanks strategically sited at elevations from 370 to 900 feet. The individual pressure districts being served vary greatly in area and can usually be supplied by more than one of these sources.

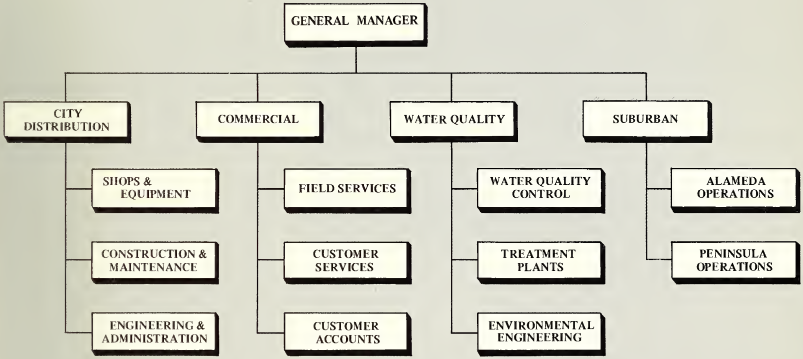
San Francisco's eleven municipal reservoirs can hold, at capacity, some 411 million gallons (1,271 acre feet), approximately a five-day supply at the current average rate of consumption for the City. In addition, there is an emergency supply immediately available within the City at the Lake Merced and Francisco reservoirs.

Alameda Creek near Lavenstein Bridge on Geary Road

The underground transmission and distribution mains, ranging in size from 2 inch to 60-inch diameter, are maintained and operated by the City Distribution Division of the Water Department. Water delivery is monitored to approximately 161,000 services, some of which require as many as a dozen water meters. Along with the ongoing program of repair and annual replacement of 20,000 feet of deteriorated pipes, worn meters are replaced at the rate of some 4,000 per year.

Through wholesale deliveries to suburban agencies and direct deliveries to City customers, the San Francisco Water Department provides water to residential, commercial and industrial consumers in the San Francisco Bay region. More than 60 percent of the water goes to 31 agencies in Alameda, Santa Clara and San Mateo County.

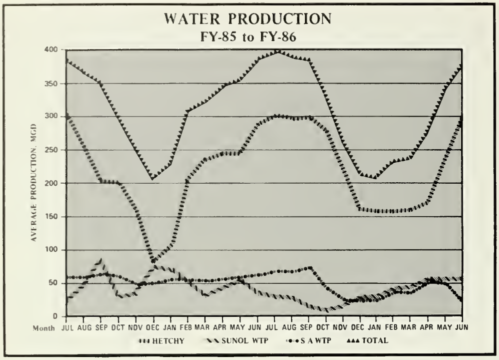
WATER DEPARTMENT ORGANIZATION

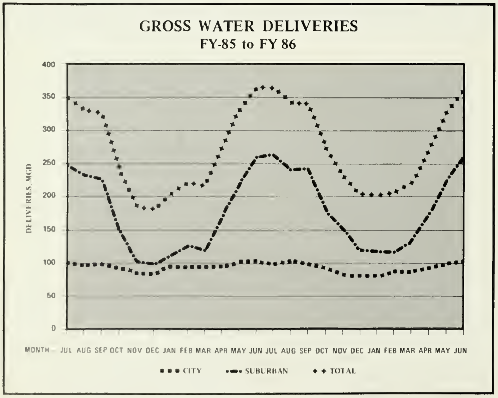


The Water Department is composed of five operating Divisions: Administration, City Distribution, Suburban, Commercial, and Water Quality. The Administration Division provides planning, policy direction and overall management. The City Distribution Division directs maintenance and operational activities to assure adequate pressure and volume of water for domestic and fire-fighting purposes within San Francisco. The Suburban Division is responsible for managing local watersheds and reservoirs, transmitting and delivering water to the City and all Suburban customers, and maintaining all delivery facilities. The Commercial Division provides customer relation services and billing and collection functions. The Water Quality Division is responsible for protecting water resources, water treatment, and monitoring water quality to ensure conformance with all state and federal standards, rules and regulations.

The Water Department provides an adequate supply to its users and maintains water quality which meets current standards. The current sources of supply are projected to be adequate for the City and for the suburban customers at least through the year 2000, and the water quality exceeds current standards.

However, before the turn of the century, the water demand during peak periods is projected to be such that the supply will need to be supplemented by increased use of the existing Crystal Springs and San Andreas reservoirs. In addition, water quality requirements are expected to be more stringent. To satisfy these needs, the Water Department is planning to increase the filtration capacity at the existing filtration plant at San Andreas Reservoir by 40 million gallons


WATER PRODUCTION
FY-85 to FY-86


GROSS WATER DELIVERIES
FY-85 to FY 86

(mgd) and to construct a new 40 mgd filtration plant for Crystal Springs Reservoir.

At the November 1984 general election, San Francisco voters approved the $104 million 1985 water revenue bond issue, which was subsequently successfully sold on October 15, 1985 at an average 8-7/8% interest for various periods ranging up to 30 years.

San Andreas Filtration Plan

The existing San Andreas Filtration Plant is a key element in the Water Department's peninsula supply system, filtering water from San Andreas Reservoir for delivery to consumers on the northern end of the San Francisco Peninsula. The 80 mgd capacity plant started operation on August 8, 1972 and was built at a cost of $7.6 million. Together with the Sunol Valley Filtration Plant in Alameda County, this plant provides the Water Department with the ability to supply pure, clear water from all five local impoundment reservoirs in the Bay Area to be supplemented by the supply coming through the Hetch Hetchy Aqueducts from the Sierra Nevada.

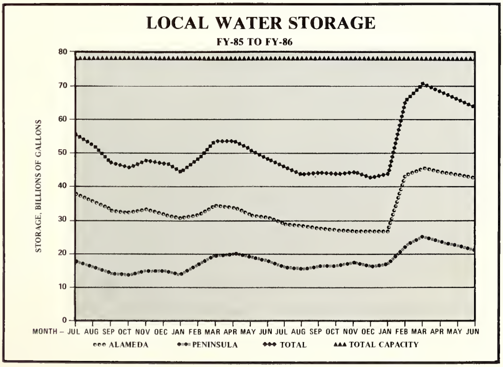
The existing plant was designed for full treatment of water but has been operating for the last three years as a direct filtration plant due to the purity of the water supply. As a result, the expansion is proposed for direct filtration. The expansion from 80 mgd to 120 mgd includes the addition of six filters with the option of installing a sedimentation basin at a later date if full treatment is required. The expansion will also require the installation of two miles of 60-inch pipe from the Crystal Springs Pump to the San Andreas Reservoir and then to the filtration plant. Project plans call for a six-month Environmental Impact Report process followed by a one year design phase ending in early 1987. Construction is expected to be completed in late 1988.

Crystal Springs Filtration Plant

The new Crystal Springs Filtration Plant will be built for full treatment of 40 mgd designed for expansion to 80 mgd. It will include four filters, two sedimentation basins and a 30-million gallon Polhemus Balancing Reservoir. Filtered water from the plant would be delivered, via a new pipeline, to the existing Crystal Springs bypass pipeline. Project plans allow for a one-year period for completion of an Environmental Impact Report followed by another year-long design phase ending in mid-1988. Construction is scheduled for completion in late 1990.

Environmental Impact Review

Under the California Environmental Quality Act a project which may have a significant effect on the environment and which is to be carried out or approved by a public agency must comply with an exhaustive environmental review process, including the preparation of an Environmental Impact Report (EIR). The EIR reflects not only an independent technical analysis of the project's potential impacts, but also comments of other agencies with some form of jurisdiction over the project and with interested members of the public. Contents of the EIR include a "detailed statement" of the project's significant environmental effects; any such effects which cannot be avoided if the project is implemented; mitigation measures proposed to minimize such effects; alternatives to the proposed project; the relationship between local and short-term uses and long-term productivity; any significant irreversible environmental changes which would result from the project; the project's growth-inducing impacts; and a brief statement setting forth the agency's reasons for determining that certain effects are not significant and hence do not require discussion in the EIR. Compliance with the provisions of the EIR requirements has been incorporated into the Project time schedules and budgets.


LOCAL WATER STORAGE

FY-85 TO FY-86

Overspill at Lake Eleanor

Lake Eleanor Dam

PROJECT SCHEDULE

The San Andreas and Crystal Springs Filtration Plants are being designed and constructed on separate schedules. The timing of the major Project phases for each plant is expected to be as shown below. Certain activities overlap extensively (e.g. design and EIR) so that the Project phases shown do not necessarily depend on completion of previously completed phases.

	Expected Completion	
Phase of Project	*San Andreas*	*Crystal Springs*
Environmental Review Process	Mar. 1986	July 1987
Design	Jan. 1987	Aug. 1988
Award of Construction Contracts	June 1987	Nov. 1988
Construction	Dec. 1988	Oct. 1990
Plant Enters Rate Base	1988-89	1990-91

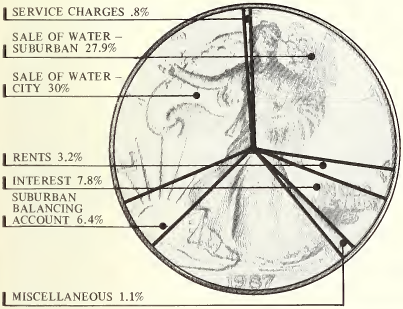
These Project milestones are subject to acceleration or delay for numerous reasons and are meant to serve only as a general indication of the Water Department's current state of planning.

Estimated Project Costs	(000)
Initial Planning	$ 165

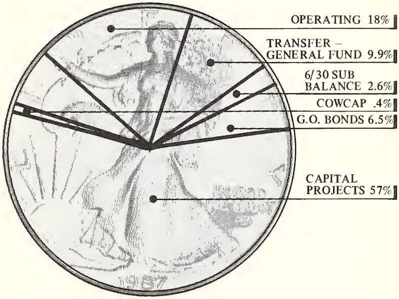
San Andreas	
Construction	$ 9,000
Design Consultant	900
City Engineering Services	1,143
Water Department Administration	510
Contingency	2,700
	$14,253

Crystal Springs Plant	
Construction	$ 42,550
Design Consultant	6,800
Design Engineering Services	2,878
Water Department Administration	2,318
Contingency	13,036
	$ 67,582
	$ 82,000

SOURCE



ALLOCATION



FISCAL YEAR 1986-87
$89,512,243

SOURCE OF FUNDS	1985-86 Actual Expenditures	1986-87 Approved Budget
July 1— Unappropriated Balance	$20,166,608	$20,425,815
July 1— Suburban Balancing Acct.	3,557,042	5,726,956
Sale of Water		
City	27,137,958	26,868,000
Suburban	29,400,355	24,991,472
Sub-Total Water Sales	56,538,313	51,859,472**
Rents	3,097,766	2,900,000
Interest	8,085,176	7,000,000
Miscellaneous	840,108	1,000,000
Service Charges	710,979	600,000
Fund Transfer from DPW	230,037	—0—
Sub-Total Revenues	69,502,379	63,359,472
Total Source of Funds	$93,226,029	$89,512,243

ALLOCATION OF FUNDS	1985-86 Actual Expenditures	1986-87 Approved Budget
Operating	$46,346,271	$51,061,026
G.O. Bond Debt Service	6,366,887	5,859,517
Indirect Costs—COWCAP	292,068	340,293
Billing Project	324,032	71,653
Capital Improvements	13,344,000*	15,555,400
Facilities Maintenance	400,000	522,000
Sub-Total	$67,073,258	$73,409,889
Transfer to General Fund	—0—	8,900,000
June 30— Suburban Balancing Acct.	5,726,956	2,169,914
June 30— Unappropriated Balance	20,425,815	5,032,440
Total Allocation of Funds	$93,226,029	$89,512,243

* *Net of Project Closeouts*
** *Estimate revised after the publishing of the Controller's Budget*

BALANCE SHEET

Years Ended June 30, 1986, 1985 and 1984	*(In Thousands)*		
ASSETS	1986	1985	1984
Property, Plant and Equipment Utility Plant:			
Water	$316,116	$305,520	$294,932
Total utility plant	$316,116	$305,520	$294,932
Accumulated depreciation	(114,942)	(109,609)	(104,966)
Construction in progress	2,320	2,157	5,593
Net property, plant and equipment	293,494	198,068	195,559
Restricted Assets:			
Cash and investments	73,223	11,367	12,655
Cash with fiscal agent	38,720	———	———
Interest receivable	2,934	———	———
Total Restricted Assets	**114,877**	**11,367**	**12,655**
Current Assets:			
Cash	57,045	50,539	40,118
Accounts receivable:			
Water and power	6,170	5,445	5,567
Rental, claims and other	2,070	2,220	1,693
	8,240	7,665	7,260
Allowance for doubtful accounts	(76)	(75)	(76)
	8,164	7,590	7,184
Interfund Accounts Receivable:			
General City departments and funds	260	177	(324)
Materials and supplies	1,714	1,470	1,539
Unbilled costs on work orders for other City departments		106	24
Total Current Assets	**67,183**	**59,902**	**98,541**
Total Assets	**$385,559**	**$269,337**	**$256,755**

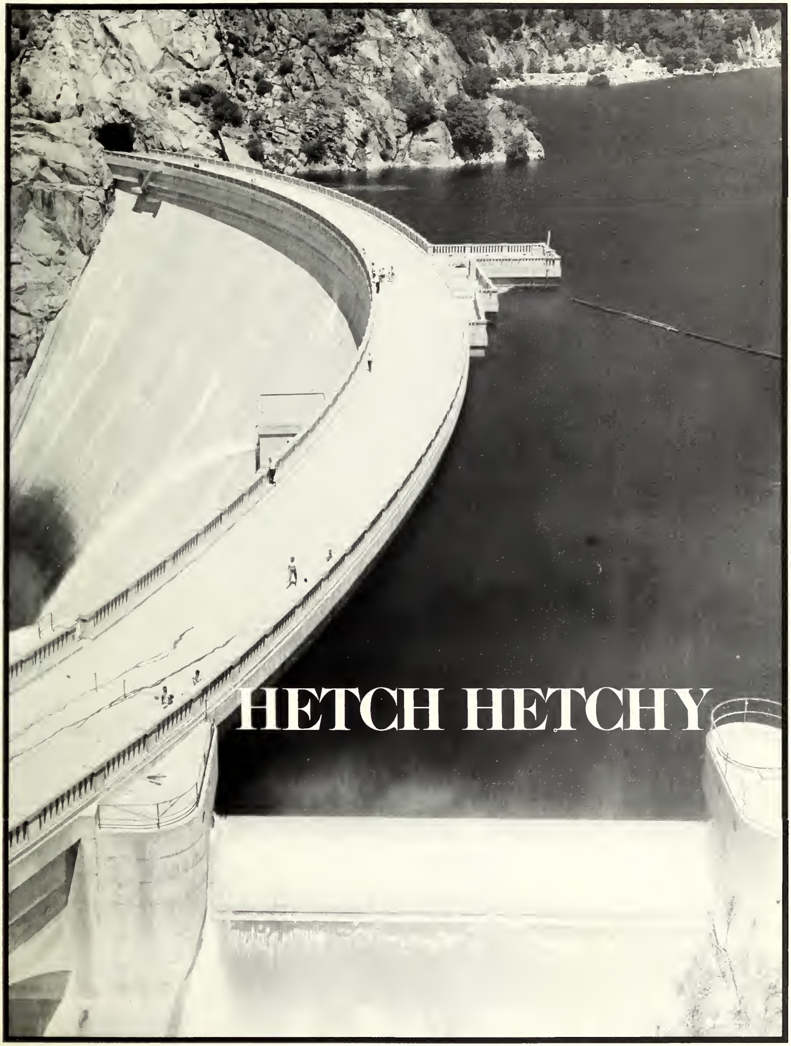
BALANCE SHEET

Years Ended June 30, 1986, 1985 and 1984 *(In Thousands)*

LIABILITIES	1986	1985	1984
Retained Earnings	$ 236,590	$ 305,520	$ 211,192
Long- term debt			
General Obligation Bonds	20,350	24,892	29,699
Revenue Bonds	101,810	- - -	- - -
Long-term sick leave payable	2,735	2,590	2,245
Total Capitalization	$ 361,485	$ 253,397	$ 243,136
Current Liabilities:			
Current portion of general obligation long-term debt	4,542	4,808	4,878
Accounts payable	2,326	1,705	1,723
Accrued payroll	1,059	115	730
Accrued vacation, sick leave and workers' compensation payable	2,581	2,365	2,374
Accrued interest payable	261	322	387
Retention due to contractors	138	26	121
Interfund payables to General City departments and funds	1,605	1,062	1,360
Damage and claims liability	2,500	875	875
Deposit and construction advances	1,552	1,262	1,171
Suburban revenue requirement estimated liability	6,000	3,400	
Total Current Liabilities	$ 22,564	$ 15,940	$ 13,619
Total Capitalization and Liabilities	$ 385,559	$ 269,337	$ 256,755

STATEMENT OF INCOME

Years Ended June 30, 1986, 1985 and 1984		*(In Thousands)*	
	1986	1985	1984
Operating Revenues:			
Water	$ 56,961	55,434	54,029
Total Operating Revenues	**56,961**	**55,434**	**54,029**
Operating expenses:			
Purchased power and energy	7,443	6,932	6,630
Transmission and distribution	10,084	8,836	9,290
Operation and maintenance	16,080	12,749	12.314
General and administrative	16,178	14,339	12,835
Depreciation	5,456	4,996	5,108
Property taxes	1,406	1,413	1,283
Total Operating Expenses	**56,647**	**49,265**	**47,460**
Total Operating Income	**314**	**6,169**	**6,569**
Other Income:			
Rental income, net of expense	2,829	2,550	2,320
Interest	7,245	6,669	5,999
Other	1,785	1,105	1,379
Total Other Income	**11,859**	**10,324**	**9,896**
Other Expense:			
Interest expense	1,498	1,770	2,046
Other income, net	10,361	8,554	7,652
Income from operating transfers	10,625	14,723	14,221
From Hetch Hetchy			1,230
From (to) City and County of San Francisco			1,230
Tax support	6,367	6,713	6,975
General fund	(6,367)	(6,713)	6,975
Net Income	**$ 10,675**	**$ 14,723**	**$ 15,451**



HETCH HETCHY

Hetch Hetchy Water and Power

The Hetch Hetchy Water and Power System, which provides over 80% of the water used by the Water Department, consists of the development of three streams in the Sierra Nevada: Eleanor Creek, the Cherry River and the Tuolumne River. Water is impounded by three major dams and reservoirs. O'Shaughnessy Dam on the Tuolumne River forms Hetch Hetchy Reservoir, which is the largest of the three reservoirs. The original dam was completed in 1923, and was raised to its current height of 312 feet in 1938.

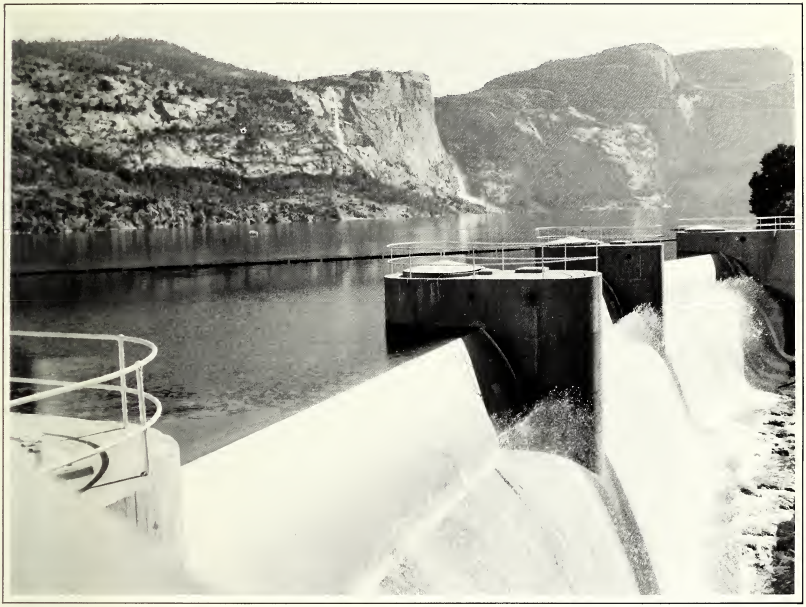
Eleanor Dam, located on Eleanor Creek about five miles northwest of Hetch Hetchy, forms Lake Eleanor, the smallest of the three reservoirs. Eleanor Dam was completed in 1918 to provide water for year-round operation of the Early Intake Power Plant.

Cherry Dam, completed in 1958, is located on the Cherry River about one mile northwest of Eleanor Dam forming Lake Lloyd.

From these Hetch Hetchy facilities, water flows through 122 miles of conduits operated by the Commission's Hetch Hetchy Project before it is delivered into the system of the San Francisco Water Department. The Water Department purchases water from Hetch Hetchy by paying an assessment composed of the water portion of Hetch Hetchy's operations and maintenance expenses, general obligation bond debt service and capital program costs.

Hetch Hetchy Reservoir

Hetch Hetchy Reservoir – middle portion, showing Kolana Rock – looking east



Overspill at O'Shaughnessy Dam

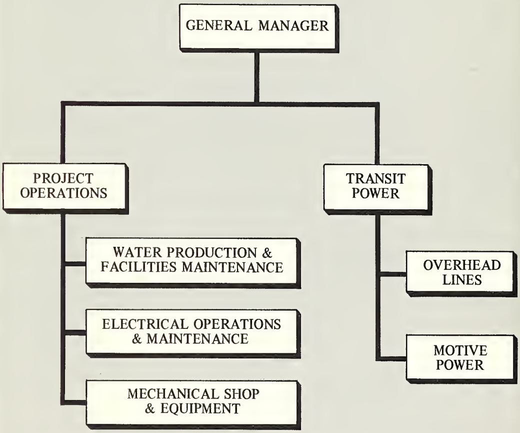
The Hetch Hetchy Project also provides electric generating capacity for use by the City and for sale to certain wholesale purchasers.

The Hetch Hetchy Project is comprised of two related but separate water systems, together with their associated power components. The primary system diverts water from the Hetch Hetchy Reservoir to the San Francisco Water Department after it passes through the Kirkwood and Moccasin Power Plants. A second system diverts water from Lake Lloyd and Lake Eleanor to the Don Pedro Reservoir after it passes through the Holm Power Plant. Water impounded in the Don Pedro Reservoir is used to satisfy the Raker Act entitlements of the Modesto and Turlock Irrigation District.

Electric power generated at the three power plants is conveyed through approximately 165 miles of high voltage transmission lines to points of delivery to the Modesto and Turlock Irrigation Districts and into the PG&E system for "transmission" to San Francisco for municipal purposes and to the city's industrial customers under contractual agreements.

O'Shaughnessy Dam

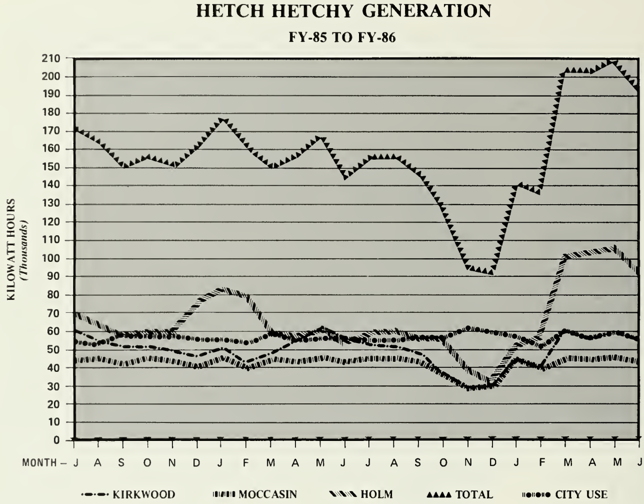
HETCH HETCHY – ORGANIZATION CHART


GENERAL MANAGER
PROJECT OPERATIONS
TRANSIT POWER
WATER PRODUCTION & FACILITIES MAINTENANCE
ELECTRICAL OPERATIONS & MAINTENANCE
MECHANICAL SHOP & EQUIPMENT
OVERHEAD LINES
MOTIVE POWER

Hetch Hetchy's operating budget is based on a normal water year with full reservoirs at the beginning of the fiscal year. For 1985-86 this will be $87.6 million after the equity transfer to the General Fund of $50 million. The purchase of power and wheeling charges are substantially higher than in FY 84-85 due to anticipated PG&E rate increase. FY 85-86 revenue projections are also substantially higher than projected for FY 84-85 because of the new negotiated power rates with Modesto and Turlock Districts.

Organizational Description

Hetch Hetchy is composed of four divisions (General Administration, Project Operations, Transit/Motive Power, and the Bureau of Light, Heat and Power).


HETCH HETCHY GENERATION
FY-85 TO FY-86
KILOWATT HOURS
(Thousands)
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
MONTH – J A S O N D J F M A M J J A S O N D J F M A M J
KIRKWOOD
MOCCASIN
HOLM
TOTAL
CITY USE

Hetch Hetchy provides hydroelectric power to specified users in the City and County of San Francisco and the San Joaquin Valley and certain commercial purchasers, and delivers more than 80% of the water used by the San Francisco Water Department for distribution and sale. Administration provides overall management of the Department, including monitoring all capital improvement projects funded by Hetch Hetchy, and conducts negotiations for the sale of Hetch Hetchy power and water to outside customers. Project Operations is responsible for collecting, storing and delivering domestic water to the San Francisco Water Department and for generating and transmitting electric power. Transit/Motive Power is responsible for providing electrical power for propulsion of Muni vehicles through operating and maintaining the Motive Power distribution system. Light, Heat and Power is responsible for all aspects of city lighting and for computing all electric and gas charges for the various municipal agencies.

Bureau of Light, Heat and Power

The Bureau of Light, Heat and Power operates administratively under Hetch Hetchy Water and Power. The Bureau's legal authorities are based on Section 3.592 of the Charter and on Chapter 25 of the Administrative Code. The Bureau is responsible for lighting all public streets within the city by maintaining and repairing city-owned installations through two annual contracts and administering a contract with PG&E for servicing their installations. The Bureau arranges for furnishing electricity, gas and steam to municipal agencies and calculates records, budgets and prepares charges. It also provides technical assistance to other departments relating to electricity and gas consumption, schedule of charges, metering, services and cost analyses.

The San Francisco School District and Child Care Center, which formerly work ordered the BLHP, now pays PG&E directly.

BALANCE SHEET

Years Ended June 30, 1986, 1985 and 1984	*(In Thousands)*		
ASSETS	1986	1985	1984
Property, plant and equipment			
Utility plant:			
Water	$ 98,944	$ 98,641	$ 98,584
Power	142,152	152,945	153,525
Joint	124,627	108,846	106,099
Other	410	411	410
Total utility plant	366,133	360,843	358,618
Accumulated depreciation	(135,889)	(130,193)	(124,374)
Construction in progress	24,447	10,159	2,452
Net property, plant and equipment	254,691	240,809	236,696
Restricted assets			
Cash and investments	682	682	2,641
Current Assets:			
Cash	89,342	110,785	138,048
Accounts receivable:			
Water and power	19,035	6,112	3,472
Rental, claims and other	2,058	3,659	2,912
	21,093	9,771	6,384
Allowance for doubtful accounts	- - -	(1)	(6)
Grants receivable	682	64	1,121
Interfund accounts receivable:			
General City departments and funds	5,371	22	1,638
Materials and supplies	1,616	101	111
Total Current Assets	**118,104**	**120,742**	**147,297**
Total Assets	**$ 373,477**	**$ 362,233**	**$ 386,634**

Years Ended June 30, 1986, 1985 and 1984	*(In Thousands)*		
CAPITALIZATION AND LIABILITIES	1986	1985	1984
Contributed capital	$ 54,540	$ 53,707	$ 52,149
Retained earnings	236,590	305,520	211,192
	349,100	341,269	366,952
Long-term debt			
General Obligation Bonds	3,375	6,523	9,801
Long-term sick leave and workers' compensation payable	1,035	943	697
	353,510	348,735	377,450
Current Liabilities:			
(payable from current assets)			
Current portion of general obligation bonds	3,148	3,277	3,552
Accounts payable	13,859	8,363	2,994
Accrued payroll	460	128	221
Accrued vacation, sick leave and workers' compensation payable	1,132	975	621
Accrued interest payable	102	152	206
Retentions due contractors	379	108	102
Interfund payables to General City departments and funds	479	302	1,420
Damage and claims liability	200	25	25
Deposit and construction advances	208	168	47
Total Current Liabilities	19,967	13,498	9,184
Total Capitalization and Liabilities	$ 373,477	$ 362,253	$ 386,634

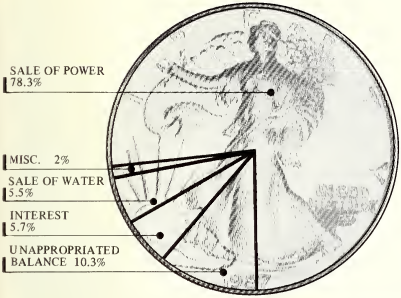
HETCH HETCHY WATER & POWER

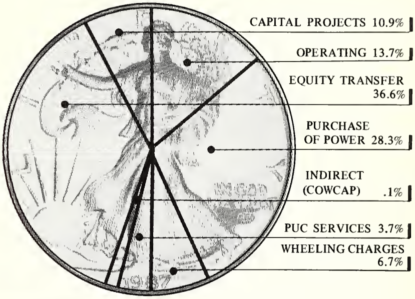
STATEMENT OF INCOME

Years Ended June 30, 1986, 1985 and 1984	*(In Thousands)* 1986	1985	1984
Operating revenues:			
Water	$ 7,636	$ 7,146	$ 6,826
Electricity	118,246	60,190	70,290
Total operating revenues	126,246	67,190	77,116
Operating expenses:			
Purchased power and energy	47,374	29,885	7,068
Transmission and distribution	10,231	3,474	3,670
Operation and maintenance	5,164	4,028	3,796
General and administrative	6,357	6,400	7,403
Depreciation	5,687	5,833	5,755
Property taxes	581	537	500
Total operating expenses	75,493	50,157	28,192
Operating income	50,753	17,179	48,924
Other income:			
Rental income, net of expense	34	60	124
Interest	10,193	14,948	13,542
Other	(276)	202	8
Total other income	9,951	15,210	13,674
Other expenses:			
Interest expense	269	448	526
Operation of Municipal Railway overhead lines	3,437	2,982	2,745
Other income, net	6,245	11,780	10,405
Income before operating transfers	56,998	28,959	59,329
Operating transfers:			1,230
To Water Department	---	---	---
From (to) City and County of San Francisco:			1,230
Tax support	3,596	3,998	4,129
General fund	(53,596)	(60,198)	(35,129)
			(32,230)
Net Income	$ 6,998	$ (27,741)	$ 27,099

SOURCE

ALLOCATION

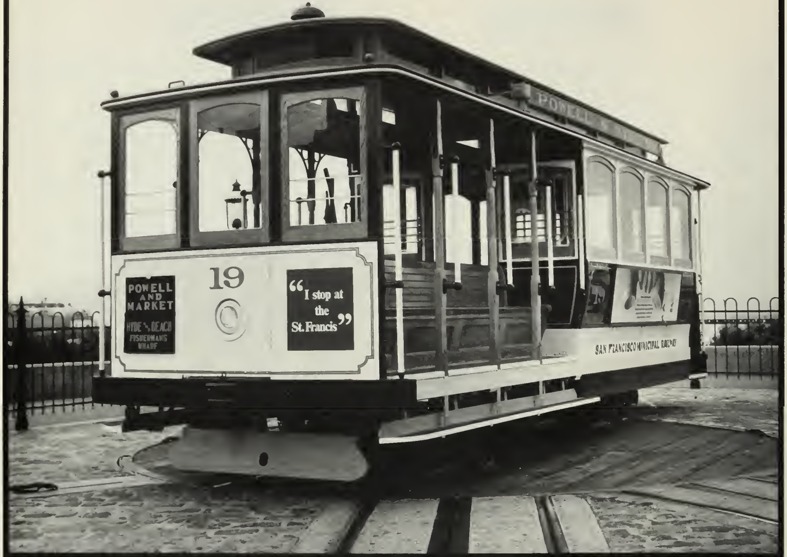




FISCAL YEAR 1986-87
$138,841,421

SOURCE OF FUNDS	1985-86 Actual Revenues	1986-87 Approved Budget
July 1 Unappropriated Balance	$ 25,005,423	$ 14,297,901
Interest	10,192,785	7,952,000
Sale of Power	118,737,751	108,687,000
Sale of Water	7,443,000	7,570,000
Miscellaneous	233,920	334,520
Sub Total	$ 161,612,879	$ 138,841,421

ALLOCATION OF FUNDS	1985-86 Actual Revenues	1986-87 Approved Budget
Operating	$ 17,229,960	$ 17,241,776
Purchase of Power	46,684,490	35,506,000
Wheeling Charges	10,132,311	8,430,480
PUC Services	4,135,921	4,615,779
Indirect (COWCAP)	110,190	160,904
Sub Total	$ 78,292,872	65,954,939
Capital	19,022,106	13,684,200
Total Expenditures	**$ 97,314,978**	**$ 79,639,139**
Transfer to General Fund	50,000,000	$ 46,000,000
Anticipated June 30 Unappropriated Balance	$ 14,297,901	$ 13,202,282



MUNICIPAL RAILWAY

muni

Cable Car No. 19 was completely constructed by the San Francisco Municipal Railway carpenter shop from the original Cable Car plans. The 1987 version of the 1857 Cable Car is currently serving patrons downtown to Aquatic Park 'and Fisherman's Wharf.

William G. Stead, General Manager

The San Francisco Municipal Railway was the first municipally owned transit system in the United States, commencing operation in 1912. An early provision of the City Charter adopted in 1900 provided that public utilities, including street railway facilities were to be acquired by the City for public operation. Muni owes its beginning to a $2 million bond issue approved in 1909 by the citizens of San Francisco.

Throughout the decades that followed, Muni grew steadily through extensions and acquisitions, until the last of the privately-owned transit lines in San Francisco was purchased in 1952. Presently, Muni operates 80 different transit routes, providing over three million hours of service annually - - one of the highest per capita service standards in the country.

The Muni General Manager has overall operational, planning and administrative responsibility for Muni's three divisions: Operations, Equipment Maintenance and Facilities Maintenance. Other functions that report to the office of the General Manager are Schedules and Traffic (collect service data and prepares schedules), Planning (performs service planning and related duties), Community Affairs (monitors public correspondence, provides telephone information service and distributes maps), and Paratransit Services (provides transit services to elderly and handicapped patrons and System Safety.

Operations Division. Paul Toliver, Deputy General Manager

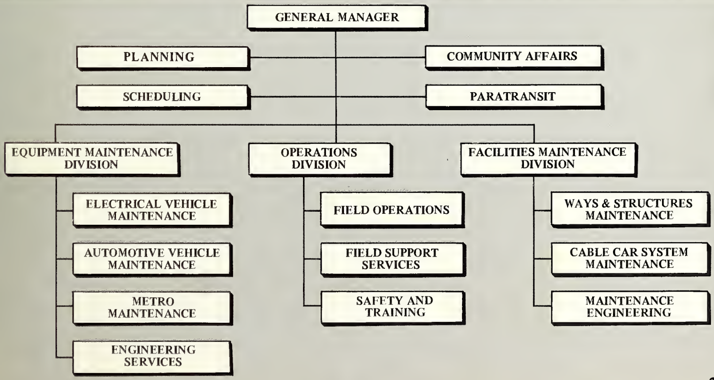
The Operations Division consists of three sections: Field Operations; Field Support; and Safety and Training. Field Operations manages the delivery of service on the street and Metro stations. Field Support manages and dispatches the operation labor force. Safety and Training trains and retrains operators.

Equipment Maintenance. Ann Branston, Deputy General Manager

Equipment Maintenance performs preventive maintenance, running repairs and heavy duty repairs on Muni's fleet of revenue vehicles. Equipment Maintenance has three sections: Automotive Maintenance (maintains diesel buses), Electrical Vehicle Maintenance (maintains trolley coaches and cable cars), and Metro Maintenance (maintains LRV's and performs heavy duty rebuilding activities).

Facilities Maintenance -Ed Pearson, Deputy General Manager

MUNICIPAL RAILWAY – ORGANIZATION CHART



Left to Right: 30, 45 & 65 passenger coaches.

Cable Car

The Facilities Maintenance Division maintains and repairs all Muni facilities, major equipment and building systems, track and wayside structures, storage yards and the electric vehicle overhead line system. It is responsible for maintaining the cable car propulsion system and managing engineering and construction support in Muni repairs, maintenance and improvement projects. The largest section is Ways and Structures, which includes custodians, stationary engineering, construction trades, signal and communications system maintenance, track inspection and wayside maintenance, and overhead lines maintenance. The other sections in the division are Cable Machinery (Cable Car) and Muni Engineering.

Muni has long recognized the need for accurate, comprehensive, and up-to-date information on boardings by fare-type and location, passenger and vehicle trip lengths and times, schedule adherence, passenger loads throughout the system, and a host of other useful data, on a route-by-route basis. A comprehensive data collection project has been completed, and an ongoing plan for continually updating the base data is now in place. These data will be used for everything from route planning to marketing, from fine-tuning schedules to aiding line supervisors, and from revenue projection to performance monitoring. Computer software to make the data available to a host of potential Muni and PUC users is currently being developed.

In order to avoid missing scheduled runs due to lack of operator availa-

Cable Car Barn

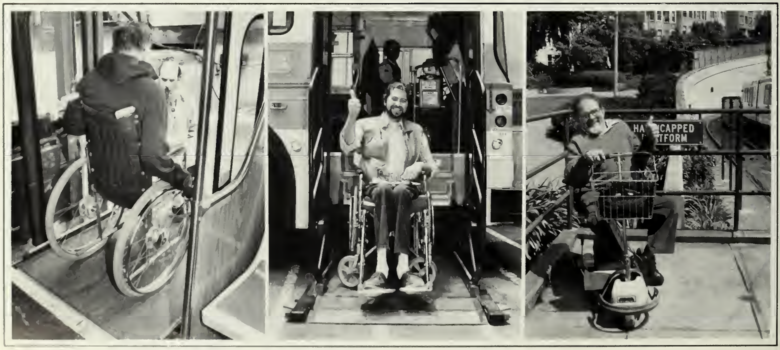
bility, Muni is refining its methods for determining the optimum number of operators needed, and continues to work with PUC personnel to improve hiring practices. To improve operator performance and reduce accidents, new computerized means of tracking various indicators are being developed, and training programs have been expanded. Muni has designed a new system to improve communications between vehicle operators and the Control Center. Initial operation of the Automated Vehicle Monitoring System (AVM) will increase security on Muni vehicles. Future enhancements to AVM will allow Muni to centralize supervision of all its lines from the Control Center, thus improving service reliability and line supervision.

Muni's fixed route service and paratransit service is being increasingly utilized by seniors and disabled people. Muni currently provides over 10,000 Bay Region Transit Discount Cards for handicapped persons and sells roughly 21,000 Senior Passes per month.

Accessible service has been expanded as coaches with lifts and

Handicap equipment

Wayside platform



kneeling features were deployed on designated lines. Metro surface accessibility is improving with the construction of wayside platforms at key locations. Although substantial progress in improving paratransit services has occurred, the supply of paratransit services is insufficient to meet demand. In FY 84-85, nearly 34,000 trips were made by disabled people using lift-equipped vans (up 67% from the previous year), and nearly 128,000 paratransit taxi trips were made (up more than 18%). In FY 1985-86, 35,820 trips were made by disabled persons using lift-equipped vans and over 113,500 paratransit taxi trips were made or 96% of those scheduled with a 97% client satisfaction rated. But, with 1800 people on a waiting list for paratransit services, the PUC has recently increased paratransit funding by $1,000,000 annually.

During FY 1984-85, Muni utilized approximately $34 million in capital grants to improve the reliability and capacity of its system. Muni anticipates receiving $48 million in capital funds during FY 85-86. Major projects for which FY 85-86 funding has been received are:

- $5 million for engineering work on the Muni Metro Embarcadero Turnaround Project.
- $7 million to purchase 50 new

Handicap lifts

35 -foot diesel coaches to replace the aging AMG fleet.

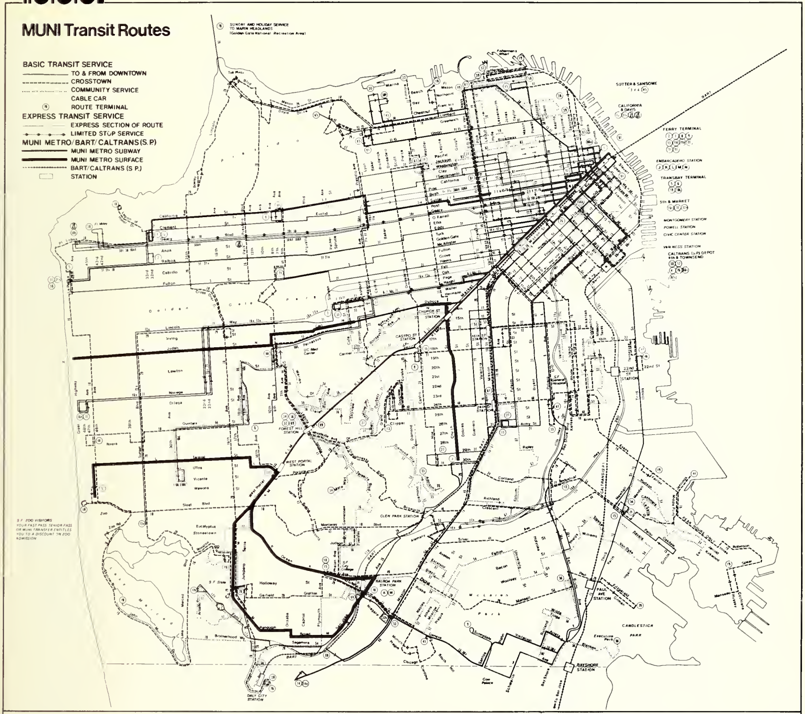
- $2 million to reconstruct trolley overhead at critical points in the network where switches and other special work have deteriorated.

A comprehensive list of Transportation Systems Management (TSM) measures is ready for implementation to speed the flow of Muni vehicles through City streets. Such measures include traffic signal timing adjustments and preemptions, transit priority and transit-only lanes, improved signage, transit loading islands and bulbs, and stepped up enforcement of existing traffic and parking restrictions.

Implementation of Muni's comprehensive Equipment Maintenance Plan is proceeding on schedule. The most significant projects programmed for implementation over the next two to five years are the trolley coach component rebuild and replacement program, rebuild and replacement program for major components of the LRV fleet, a diesel engine rebuild program and development of a computerized Vehicle Maintenance System to track repair and the associated parts and labor costs.

Muni will continue its program to convert motor coach lines to trolley coach as a means of reducing operating costs. Muni planning has determined that along hilly and congested routes, operating costs are significantly reduced if trolleys are substituted for diesels. These costs savings, in spite of substantial capi-

(top) Articulated Diesel Coach (center Light Rail Vehicle (LRV (bottom) Trolley Coach



MUNI Transit Routes

tal requirements, could justify the electrification of several of Muni's motor coach routes, During the next five to seven years, Muni will convert two to three lines.

Muni is planning the additional acquisition of approximately 90 articulated coaches, both diesel and trolley, over the next five years. These coaches will provide additional peak capacity and, if substituted for standards at a rate of at least one for one, will also produce productivity gains. Productivity benefits occur when fewer articulateds, which have 50% greater capacity than standards, are employed to carry the same or increased numbers of riders.

Full four-lane transit operation is now in effect on Market Street. However, much work remains to be done to make the new operating scheme a part of an overall Transit Thoroughfare Project. Remaining work includes: track construction, street repaving, wider boarding islands with safety railings, curb realignment, beautification work, and new track to connect the Market Street rail line with the proposed Embarcadero rail line. ☐

BALANCE SHEET

ASSETS *Years Ended June 30, 1986, 1985 and 1984*	*(In Thousands)* 1986	 1985	 1984
Current Assets:			
Cash	$ 219	$ 144	144
Equity in cash and investments of the City Treasurer	17,492	6,497	8,715
Receivables:			
Grants	14,155	15,746	24,502
State returned sales tax	—	3,350	—
Interfund receivables from general City departments and funds	528	310	1,736
Miscellaneous	741	1,677	2,204
	15,424	21,083	28,442
Materials and supplies	13,485	12,604	9,897
Total Current Assets	**46,620**	**40,298**	**47,198**
Restricted assets:			
Cash and short-term investments held by trustee	50,866	36,772	45,135
Interest receivables	520	632	603
	51,386	37,404	45,738
Property, plant and equipment:			
Land	8,224	8,224	7,319
Ways and structures	202,638	187,635	101,090
Equipment	205,830	207,842	240,378
Power	(–)	(–)	(1,050)
Construction in progress	10,901	17,909	13,750
	427,593	421,610	363,587
Less accumulated depreciation	103,182	90,260	83,210
	324,411	331,350	280,380
	$ 422,417	$ 409,052	$ 373,316

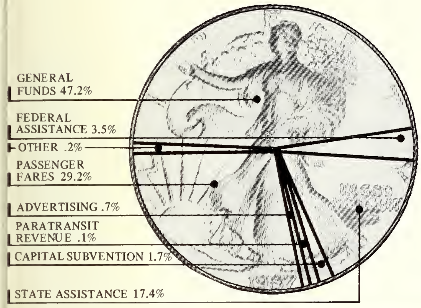
Years Ended June 30, 1986, 1985 and 1984 *(In Thousands)*

LIABILITIES AND FUND EQUITY	1986	1985	1984
Current Liabilities:			
Vouchers payable and accrued expenses	$ 5,560	$ 10,332	$ 15,673
Accrued vacation, sick leave and workers' compensation	12,450	11,732	7,725
Accrued payroll	6,618	5,390	5,767
Interfund payables to general City departments and funds	10,513	9,973	20,663
Accident claims liability	12,121	12,121	12,121
Deferred revenue	871	991	4,173
Restricted liabilities:			
Accounts payable and accrued liabilities	1,161	975	1,115
Current portion of bonds payable	2,265	2,210	2,150
Total Current Liabilities	**51,559**	**53,724**	**69,387**
Long-term portion of accrued sick leave and workers' compensation	10,451	10,056	6,916
Long-term portion of deferred revenue	4,471	5,089	–
Deferred revenue from restricted funds	19,017	3,832	–
Bonds payable from restricted funds, less current portion	20,405	22,670	24,880
Total Long-Term Liabilities	**54,344**	**41,647**	**31,796**
Fund Equity:			
Contributed capital	424,777	408,836	350,427
Accumulated deficit	(108,263)	(95,155)	(78,294)
Total Fund Equity	316,514	313,681	272,133
	$422,417	**$409,052**	**$373,316**

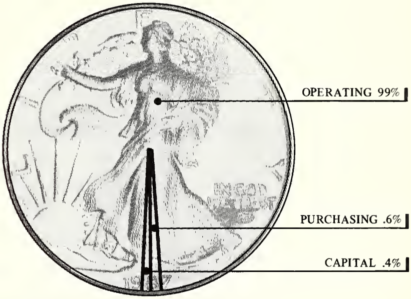
COMBINED STATEMENT OF LOSS

Years Ended June 30, 1986, 1985 and 1984	1986	*(In Thousands)* 1985	1984
Operating revenues:			
Passenger	$ 62,169	$ 55,500	$ 51,889
Advertising	1,974	2,047	1,420
	64,143	57,547	53,319
Operating expenses:			
Maintenance and repairs—ways and structures	18,716	16,297	13,520
Maintenance and repairs — equipment	48,592	45,073	34,909
Conducting transportation	114,887	114,190	96,002
General and administrative	34,903	29,162	26,795
Depreciation	14,790	13,721	12,728
	231,888	218,443	183,954
Loss From Operations	**167,745**	**160,896**	**130,635**
Nonoperating revenues (expenses):			
Contributions received:			
Metropolitan Transportation Commission			
Transportation Development Act funds — operating portion	15,403	12,054	15,347
State Transit Assistance funds — operating portion	6,099	7,816	7,288
Bridge toll funds	1,828	1,399	646
Federal operating assistance	8,984	9,012	13,953
State returned sales tax	18,200	13,400	11,300
California Transportation Commission	—	—	(87)
Interest income	884	885	3,952
Interest expense	(1,336)	(1,563)	(1,825)
Other income, net	1,162	888	(304)
Gain (loss) on disposal of fixed assets	(1,508)	79	(1,798)
San Francisco Municipal Railway Improvement Corporation income	2,077	3,014	—
	51,793	46,984	48,646
Loss Before Operating Transfers	**115,952**	**113,912**	**81,989**
Operating transfers from the City and County of San Francisco:			
Tax support	96,294	90,051	64,011
Revenue sharing	6,550	7,000	5,258
	102,844	97,051	69,261
Net Loss	$ 13,108	$ 16,861	$ 12,728

SOURCE



ALLOCATION



FISCAL YEAR 1986-87
$228,857,618

SOURCE OF FUNDS	1985-86 Actual Revenue	1986-87 Approved Budget
Federal Assistance . .	$ 8,934,648	$ 8,100,000
State Assistance	38,634,008	39,900,000
Capital Subvention . . .	4,037,663	3,800,000
Advertising	1,829,147	1,500,000
Passenger Fares	62,421,734	66,900,000
Paratransit Revenue .	114,345	240,000
Other Revenue . . .	320,869	395,000
General Funds	101,944,909	109,022,618
Total	$ 218,237,323	$ 228,857,618

ALLOCATION OF FUNDS	1985-86 Actual Revenue	1986-87 Approved Budget
Operating	$ 216,561,229	$ 226,619,931
Purchasing	1,151,094	1,467,687
Capital	525,000	770,000
Total	$ 218,237,323	$ 228,857,618

DEPARTMENTAL OVERVIEW

The Public Utilities Commission Bureaus provide administrative and technical support to the PUC operating departments: the Water Department, Hetch Hetchy and Municipal Railway.

7 DEPARTMENTS COMPRISE THE PUC BUREAUS:

- *Bureau of Management Information Systems*

  Provides electronic data processing systems support for PUC departments.

- *Bureau of Finance*

  Provides financial management, payroll, accounting and revenue collection services.

- *Bureau of Administration*
  - Legal and Claims: Claims processing, contract negotiations and monitoring, in addition to PUC liaison with the City Attorney.
  - Bureau Services: Reproduction, mail and auxiliary support services.
  - Security: Provides security for all PUC facilities and MUNI fare revenues.
  - Industrial Safety: Provides safety training for PUC personnel and inspects PUC facilities for compliance with CAL OSHA regulations.

- *Bureau of Engineering*

  Provides technical and engineering support for PUC capital improvement projects.

- *Bureau of Energy Conservation*

  Functions as the City energy conservation consultant for public and private agencies.

- *Bureau of Personnel and Training*

  Provides personnel support, Civil Service liaison and training for all PUC departments.

- *General Manager*

  Administers the overall operation of the PUC Bureaus, Hetch Hetchy, Water Department and Muni Railway.

BUREAU OF MANAGEMENT INFORMATION SYSTEMS (BMIS)

BMIS provides systems analysis and data processing support to the PUC through its five sections: Office and Business Systems, Finance and Personnel Systems, Computer Operations, Technical Services and Administration. The Office and Business Systems and Finance and Personnel Systems groups analyze business problems, identify automation opportunities, and provide systems programming services to PUC departments and bureaus. They are also responsible for increasing office automation in the PUC (there are currently eight microcomputers in service). Computer Operations is responsible for the operation of computer hardware (IBM 4381 mainframe and associated peripheral devices) and the teleprocessing network (presently 103 terminals on-line). It schedules incoming computer jobs, performs data entry functions, and produces automated reports for PUC departments and bureaus. Technical Services maintains system operating software and analyzes technical environments to ensure maximum efficiency of automated systems. Administration provides overall management of the Bureau, coordinates materials and supply requisition, short and long-term planning, personnel administration and clerical support for all BMIS sections. For FY 1984-85 BMIS had a budget of $3.8 million and 73 positions. In 1985-86 the budget went to $4.5 million and remained at 73 positions.

■ BUREAU OF FINANCE

The Bureau of Finance had 148 budgeted positions and an operating budget of $6.2 million during 1984-85 and $6.4 million during 1985-86. The Bureau is divided into three sections: Accounting, Audits and Performance Analysis, and Budgets and Grants. The Accounting Section is responsible for MUNI revenue collection and processing, payroll preparation and processing, procurement monitoring, and accounting functions supporting all PUC operations. Accounting additionally prepares the financial data for inclusion in the various external reports which the Bureau submits to funding agencies. The Audits and Performance Analysis section supports PUC management through the development and implementation of performance monitoring systems and by conducting internal audits as a means of strengthening internal management controls. This section additionally assesses the financial impact of management options and prepares the operating date included in external reports. Budgets and Grants supports the planning, operating, and capital financial requirements of the PUC through various activities such as development of annual departmental operating budgets, preparation of Capital Improvement Programs for the various departments, and monitoring and managing of both operating assistance and project grant funds in order to maximize their impact. The Revenue Projects Section is responsible for the administration of the Transit Impact Development Fee (TIDF).

■ CONTRACTS AND CLAIMS BUREAU

The Contracts and Claims Bureau is composed of three departments: Real Estate, Contract Compliance and Claims. The Real Estate Department is responsible for generating revenue through the sale and leasing of PUC-owned properties. The Contract Compliance Department oversees equal opportunity/affirmative action compliance by PUC departments with MBE, WBE, and DBE requirements. The Claims Department oversees processing of claims filed against the PUC.

The Contracts and Claims Bureau has 40 staff positions and an operating budget of $3.5 million. Bureau Manager, Mathea Falco, resigned during the Fall of 1985 and Deborah Rohrer was appointed to replace her during the Spring of 1986.

■ PROTECTIVE SERVICES & INVESTIGATION

Protective Services and Investigation is responsible for providing for security and investigation needs of the Public Utilities Commission. Ongoing responsibilities include providing support to the Personnel function in hiring and disciplinary actions, providing investigative support to all departments in security matters, and managing the surveillance guard services provided by a contractor. Other responsibilities of the department are planning and implementation of security programs and procedures. The department is staffed by a Director and assistant. The Director reports to the PUC General Manager. The annual operating budget for contractor guard services was $702,000 in 1984-85 and $648,477 in 1985-86.

Priority was given to installation of the equipment needed to implement the MUNI phase of Crime Prevention Through Environmental Design (CPTED). This includes a PUC Security and Communications Headquarters at Muni Presidio. Security staff at this headquarters will monitor television consoles that are linked to the alarms, access control and closed circuit television systems at the various Muni divisions. The introduction of CPTED will reduce the manpower required for roving security patrols at MUNI facilities by approximately 15%. CPTED programs for the Water Department and Hetch Hetchy were pursued at the same level of intensity. The time line for completion of the MUNI phase was delayed considerably due to the slowness of moving contracts through the system and delays in construction of the computer facilities. It is estimated to be operational in October 1986. The Water and Hetch Hetchy phase of the project is ahead of schedule.

■ UTILITIES ENGINEERING BUREAU (UEB)

The Utilities Engineering Bureau (UEB) provides engineering design and construction management services to the departments and bureaus in the Public Utilities Commission. There are four divisions in UEB: Project Management, Engineering Services, Construction Engineering, and Administration and Planning. For FY 1984-85 and FY 1985-86, UEB had 259 positions and an operating budget of $11.4 million (including projects funds allocated to staffing).

During FY 1985-86, the UEB completed 31 of the PUC's capital projects. By the end of the fiscal year, only 10 projects were not started and 98 projects were underway. Of the 98 projects underway, 42 were in the construction phase (43%), 28 were in the design phase (29%) and 28 were in the conceptual engineering/planning phase (29%).

Several projects should be highlighted for outstanding performance.

- The reconstruction and additions to the Market street overhead system were completed ahead of schedule, well below budget.
- The Metro Annex Project was completed under budget and ahead of schedule.
- After several years of working around a major operating subway station, the Forest Hill Station was completed.
- A new revenue-producing facility – the Moccasin Low-Head Power Plant – was substantially completed and is undergoing final testing.
- The largest construction project – the addition of a third generating unit at the Kirkwood Powerhouse–is on schedule for April 1987 power generation in spite of a 9-month schedule acceleration and a series of permit delays.

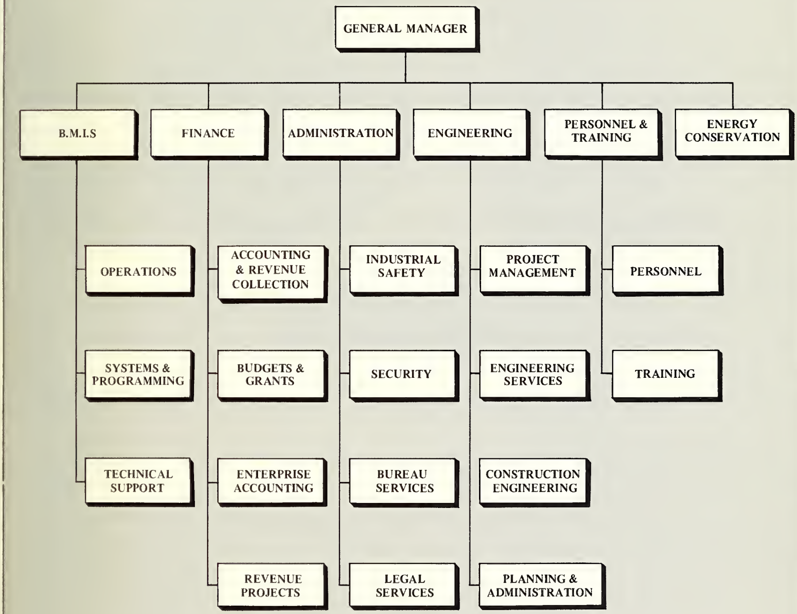
■ BUREAU OF ENERGY CONSERVATION

The Bureau of Energy Conservation is responsible for achieving efficient use of energy in all City facilities. The eight person staff of the Bureau manages the implementation of a variety of energy conservation programs. The operating budget for FY 1985-85 was $431,518. For FY 1985-86 it was $1.26 million. The majority of the funds are used for professional service contracts to conduct energy management programs for facilities and grant funded private sector projects.

■ BUREAU OF PERSONNEL AND TRAINING

The Bureau of Personnel and Training (BPT) has five (5) functional units: Operations, Affirmative Action, Examinations, Discipline and Training. The responsibilities of the Operations Unit include: position control, certification, performance evaluation, wage and salary assessment, processing of leaves and tracking MUNI passes. The Discipline Unit is responsible for processing disciplinary actions for: dismissals, terminations, automatic resignations, special medical evaluations, arbitration and employee grievances. The Discipline Unit also conducts conferences with supervisors regarding discipline matters, negotiations and interpretations of departmental Memoranda of Understanding. The unit prepares and presents cases to the Civil Service Commission and Hearing Officers. This unit also receives, processes and investigates complaints for alleged employment discrimination filed by PUC employees or employment applicants. As an adjunct to complaint processing, the unit provides counseling and information about the process. The Examinations Unit maintains eligible lists of qualified candidates for employment. The Training Unit provides PUC employees with job-related courses to enhance existing skills and capabilities. The Bureau had 46 positions and operating budgets of $1.9 million in FY 1984-85 and $2.2 million in FY 1985-86.

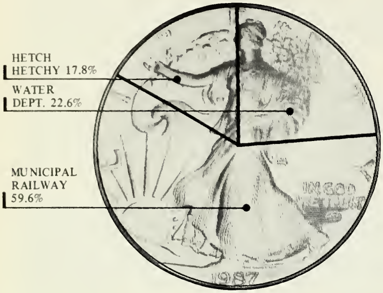
PUC BUREAUS ORGANIZATION



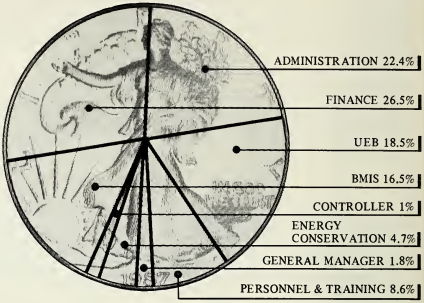
PUBLIC UTILITIES COMMISSION BUREAUS

FUNDING SUMMARY

SOURCE



ALLOCATION



FISCAL YEAR 1986-87

$25,737,856

SOURCE OF FUNDS

	1985-86 Actual Expenditures	1986-87 Approved Budget
Municipal Railway	$13,513,491	$15,365,500
Hetch Hetchy	3,966,513	4,555,601
Water Department	5,155,660	5,816,755
Total	$22,635,664	$25,737,856

ALLOCATION OF FUNDS

	1985-86 Actual Expenditures	1986-87 Approved Budget
Management Information Systems	$ 3,952,854	$ 4,239,791
Financial Management	5,914,061	6,819,681
Administration	4,993,729	5,777,640
Utilities Engineering	3,957,503	4,752,923
Personnel & Training	2,048,153	2,219,453
Energy Conservation	533,857	450,952
General Manager	998,934	1,201,223
Controller Direct Change	233,573	276,193
Capital Project		
Total	$22,635,664	$25,737,856

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